

# Oracle® Big Data Appliance

Configuration Worksheets

Release 2 (2.2.1)

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The *Oracle Big Data Appliance Configuration Worksheets* identify the information and decisions required when installing Oracle Big Data Appliance racks and in-rack expansion kits. This document contains the following sections:

- [Configuration Process Overview](#)
- [Installation Types](#)
- [Network Configuration Worksheets](#)
- [Server Group 1 Worksheets](#)
- [Server Group 2 Worksheets](#)
- [Server Group 3 Worksheets](#)
- [Sample Installation Template](#)
- [Documentation Accessibility](#)

## Configuration Process Overview

The configuration worksheets will help you plan your installation of Oracle Big Data Appliance with the network and database administrators and your Oracle representative. It is important that you complete the worksheets and provide them to your Oracle representative before receiving Oracle Big Data Appliance racks or in-rack expansion kits to avoid delaying the installation.

Your Oracle representative uses the information entered in these worksheets to create an Installation Template. Use the Installation Template to confirm that the configuration settings of your Oracle Big Data Appliance were entered correctly. You can make site-specific adjustments to the Installation Template in consultation with your Oracle representative. Some settings cannot be changed after the appliance is operational, so make your decisions carefully.

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### Note:

- Oracle Big Data Appliance uses Cloudera's Distribution including Apache Hadoop (CDH). A Hadoop cluster on Oracle Big Data Appliance is called a **CDH cluster**.
- The terms **appliance** and **rack** refer to both Oracle Big Data Appliance and Oracle Big Data Appliance X3-2.

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### To configure Oracle Big Data Appliance:

1. Read this document and the *Oracle Big Data Appliance Owner's Guide* to understand the networking requirements.
2. Identify your current management network.
3. Identify your current client access network.
4. If you have multiple appliances, then choose between connecting them into a single cluster or creating one or more independent clusters on each appliance. You can configure a cluster across multiple racks.
5. Decide how you want to configure your clusters. You can configure a cluster for CDH or for Oracle NoSQL Database. A cluster has at least six servers. In larger clusters, the number of servers must be a multiple of 3. You can configure multiple clusters in a single rack.
6. Open the *Oracle Big Data Appliance Configuration Worksheets* in Adobe Reader or Adobe Acrobat. The document is in editable form.

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**Note:** Do not use a PDF reader such as Foxit or Preview to edit the file. It may corrupt the file, such that other programs cannot read it.

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7. Complete one copy of the [Network Configuration Worksheets](#) for each rack or expansion kit being configured.
8. Complete one copy of the Server Group worksheets for each new cluster. For example, if you are configuring a single rack with one new CDH cluster and one extension to an existing cluster, then complete just the [Server Group 1 Worksheets](#). If you are configuring a single rack with two new CDH clusters, then complete both the [Server Group 1 Worksheets](#) and [Server Group 2 Worksheets](#), and so on.
9. Give the completed configuration worksheets to your Oracle representative. The information in these worksheets is used to generate an Installation Template, which your Oracle representative will give to you.
10. Verify that the information in the Installation Template is correct. To make any adjustments, contact your Oracle representative.
11. Configure your existing network to use the new IP addresses and host names supplied in the Installation Template.
12. Log in to a Linux host on the same network that Oracle Big Data Appliance will use, and run the preinstall-checkip.sh script that your Oracle representative gives to you. This script checks your existing network for conflicts with the IP addresses listed in the Installation Template.

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**Note:** Correct any network problems discovered by preinstall-checkip.sh before installation begins. Network problems can cause extensive delays. See the *Oracle Big Data Appliance Owner's Guide*.

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13. Review the network and IP address requirements described in the *Oracle Big Data Appliance Owner's Guide*.

14. Run the network connections to the planned location for Oracle Big Data Appliance.
15. Inform your Oracle representative when you have completed these steps.

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**Note:** The network administrator should be available on-site during the installation of Oracle Big Data Appliance (1 to 2 days). Otherwise, a problem with the customer network may cause extended delays.

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**See Also:**

- *Oracle Big Data Appliance Owner's Guide* for more information about the configuration settings
- *Oracle Big Data Appliance Site Checklists* for site preparations before installation

## Installation Types

You use the *Oracle Big Data Appliance Configuration Worksheets* for a full rack, a starter rack, or an in-rack expansion kit. You must identify the hardware and the desired configuration of the servers. The installation type controls the possible server layout options:

- Full Rack – 18 servers  
Configured as a single group of 18 servers, two groups of 9 servers each, two groups of 6 and 12 servers, or three groups of 6 servers
- Starter Rack – 6 servers  
Configured only as a single group of 6 servers
- Starter Rack and Kit – 12 servers  
Configured as a single group of 12 servers or two groups of 6 servers
- First Expansion Kit – 6 servers  
Configured only as a single group of 6 servers
- Second Expansion Kit – 6 servers  
Configured only as a single group of 6 servers
- Two Expansion Kits – 12 servers  
Configured as a single group of 12 servers or two groups of 6 servers

**Table 1 Server Group Configuration**

Installation Type	Server Layout

## Network Configuration Worksheets

The network configuration worksheets identify the naming conventions for the hardware and the IP addresses used on your network:

- [General Properties for the Rack](#)
- [Network Properties for the Rack](#)
- [Network Properties for the Servers](#)
- [Network Properties for the Switches](#)
- [Network Properties for the PDUs](#)
- [Advanced Network Configuration](#)

### General Properties for the Rack

In [Table 2](#), enter the names for the hardware components and other basic information.

#### Using Standardized Host Names

The rack name is used in the assignment of standardized host names for all Oracle Big Data Appliance servers. The host name for all servers is in this format:

*racknameNodeNN.domain*

In this syntax:

- *NN* is the position number of the server node in the rack (01 to 18).
- *domain* is the domain name.

For multirack clusters, Oracle recommends that the racks be named *clusternameM*, where *M* is the index of the rack in the cluster. You enter the cluster name in the Server Group worksheets.

For example, if the cluster name is *bda* and the domain name is *example.com*, then the fully qualified host name of the server at the bottom of the first rack is *bda1node01.example.com*. For the top server in the third rack of this cluster, the host name is *bda3node18.example.com*.

The host names must have fewer than 38 characters, which can be ASCII letters (a to z and A to Z), numbers (0 to 9), and hyphens (-) only. Do not begin or end the name with a hyphen. You use the host names to address the servers over the client network interface.

The host names on the other networks have the following formats. You use these formats when connecting over the other networks:

- For short host names over the administration network:  
*racknameNodeNN-adm*
- For the private InfiniBand network host names:  
*racknameNodeNN-priv*
- For the Oracle Integrated Lights Out Manager (ILOM) host names:  
*racknameNodeNN-ilom*
- For the switch host names:  
*racknamesw-ibN*

In this syntax:

- *NN* is the position number of the server in the rack (01 to 18).
- *N* is 1, 2, or 3, depending on the switch location in the rack.

Oracle recommends for a cluster of multiple racks that *rackname* be *clusternameM*, where *M* is the index of the rack in the cluster.

### Using Customized Host Names

You can change the suffixes used for the different network interfaces.

To use server host names that do not follow the naming conventions, provide your Oracle representative with a list of all individual host names. You must also enter the rack name, domain name, and time zone fields in [Table 2](#).

**Table 2 General Rack Configuration Worksheet**

Property	Example	Setting
Customer Name <sup>1</sup>	Example Inc	
Rack Name <sup>1</sup> : For a cluster of multiple racks, enter the primary rack name first.	bda1	
Server Base Name	node	
Admin Access Suffix	-adm	
Private Name Suffix	-priv	
ILOM Name Suffix	-ilom	
Switch Base Name	sw	
Time Zone <sup>1</sup>	America/New York	
Domain Name <sup>1</sup>	example.com	
Are you connecting this rack to another rack through the InfiniBand fabric, such as another Oracle Big Data Appliance rack or an Oracle Exadata Database Machine?	no	

<sup>1</sup> Required. All other properties in this worksheet have default values.

### Network Properties for the Rack

In [Table 3](#), enter up to four IP addresses for the Domain Name System (DNS) and Network Time Protocol (NTP) servers, and up to four search domains. By default, these values are used for both the client and administrative networks.

If these networks are isolated on your system and use different DNS and NTP servers, or different domains, or both, then complete [Table 3](#) for the client network and [Table 6](#) for the administrative network.

**Table 3 Network Configuration Worksheet for the Rack**

Property	Setting
DNS Servers (1 to 4)	
NTP Servers (1 to 4)	
Search Domains (1 to 4)	

## Network Properties for the Servers

In [Table 4](#), enter the network properties for the individual servers.

Each server in the appliance is assigned an IP address for the administrative 1 gigabit Ethernet (1 GbE) network, the private InfiniBand network, the 10 GbE client access network, and Oracle ILOM. The IP addresses of the servers are assigned sequentially beginning with the first IP address for node01.

If you cannot allocate sequential IP addresses on a network, then provide your Oracle representative with a list of IP addresses instead of just the starting IP address.

The following IP addresses must be on the same subnet and use the same netmask and gateway:

- Server administrative addresses
- Oracle ILOM addresses
- All switch addresses (three Sun InfiniBand switches, one Cisco Ethernet switch, and one KVM switch if present)
- PDUs addresses

For starter racks and expansion kits, the IP addresses on the administrative network cannot be in the range of 192.168.1.1 to 18 or 192.168.1.101 to 118. This restriction provides for the future installation of an expansion kit.

**Table 4 Network Configuration Worksheet for the Servers**

Property	Setting
Administrative Network: First of 6, 12, or 18 x N sequential IP addresses, where N is the number of racks being configured.  For example, if you configure three racks in a cluster, then enter the first of 54 (18 x 3) sequential IP addresses.	
Administrative Network and ILOM Netmask	
Administrative Network and ILOM Gateway	

**Table 4 (Cont.) Network Configuration Worksheet for the Servers**

Property	Setting
Private InfiniBand Network: First of 6, 12, or $18 \times N$ sequential IP addresses, where $N$ is the number of racks being configured. Optional: Defaults to 192.168.10.1 <sup>1</sup>	
Private InfiniBand Network Netmask Optional: Defaults to 255.255.252.0 <sup>1</sup>	
Client Network: First of 6, 12, or $18 \times N$ sequential IP addresses, where $N$ is the number of racks being configured.	
Client Network Netmask	
Client Network Gateway	
ILOM Network: First of 6, 12, or $18 \times N$ sequential IP addresses, where $N$ is the number of racks being configured.	

<sup>1</sup> If you are connecting this rack to another rack through the InfiniBand fabric, see the following note.

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**Note:** If you are connecting this rack to another rack through the InfiniBand fabric, then ensure that:

- The InfiniBand IP addresses of all servers are unique, including the servers in other Oracle engineered systems.
- All InfiniBand IP addresses are on the same network.

For example, if you connect an Oracle Big Data Appliance rack to Oracle Exadata Database Machine, then you must use the same netmask on the InfiniBand networks for both systems. Moreover, after you apply this netmask to the InfiniBand IP addresses of the Exadata database servers, the Exadata storage servers, and the Oracle Big Data Appliance servers, all IP addresses are in the same subnet.

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## Network Properties for the Switches

In [Table 5](#), enter the IP addresses of the Cisco Catalyst Ethernet switch and the first of three Sun InfiniBand switches. For Sun Fire X4270 M2-based racks only, enter an address for the keyboard-video-mouse (KVM) switch. The IP addresses of the switches are on the administrative network, and must be on the same subnet and use the same netmask and gateway as the other devices on this network (Oracle ILOMS, servers, and PDUs).

The IP addresses are assigned sequentially beginning with the first rack. Each rack has three InfiniBand switches, which are assigned sequential IP addresses. If you cannot allocate sequential IP addresses on a network, then provide your Oracle representative with a list of IP addresses instead of just the starting IP address.

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**Note:** Complete [Table 5](#) only for new racks, and not for expansion kits.

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**Table 5 Network Configuration Worksheet for the Switches**

Property	Setting
KVM Switch IP (Sun Fire X4270 M2-based racks only): One IP address, multiplied by the number of racks.  For example, if you configure three racks in a cluster, then enter the first of three consecutive IP addresses.	
Cisco Switch IP: One IP address, multiplied by the number of racks.	
InfiniBand Switch IP: First of three sequential IP addresses for the InfiniBand switches in each rack, multiplied by the number of racks in the cluster.  For example, if you configure two racks in a cluster, then enter only the first of six consecutive IP addresses (3 switches per rack x 2 racks).	

## Network Properties for the PDUs

In [Table 6](#), enter the IP addresses for the two power distribution units (PDUs). The IP addresses of the PDUs are on the administrative network, and must be on the same subnet and use the same netmask and gateway as the other devices on this network (Oracle ILOMs, servers, and switches).

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**Note:** Complete [Table 6](#) only for new racks, and not for expansion kits.

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**Table 6 Network Configuration Worksheet for the PDUs**

Property	Setting
PDU A: One IP address, multiplied by the number of racks.  For example, if you configure three racks in a cluster, then enter the first of three consecutive IP addresses.	
PDU B: One IP address multiplied by the number of racks.	

## Advanced Network Configuration

In [Table 6](#), you can provide configuration details for the administrative network, if they are different from the values you specified in [Table 3](#). In most installations, the administrative and client networks share the same domains, DNS and NTP servers, and so forth. When that is the case, you can leave all or part of [Table 6](#) blank, and allow

the values you specified in [Table 3](#) to be used for both the administrative and client networks.

The administrative network does not require access to DNS servers, although Oracle Big Data Appliance uses them if they are available. However, at least one NTP server must also be accessible.

**Table 7 Advanced Network Configuration Worksheet**

Property	Setting
Administrative Domain	
Are the administrative host names in the DNS?	
Administrative DNS Servers (1 to 4)	
Administrative NTP Servers (1 to 4)	
Administrative Search Domains (1 to 4)	

## Server Group 1 Worksheets

Complete the following spreadsheets to configure and activate the optional software components for server group 1 on Oracle Big Data Appliance:

- [Installed Components for Server Group 1](#)
- [Auto Service Request for Server Group 1](#)
- [Users and Groups for Server Group 1](#)
- [Cloudera Manager Email Alerts for Server Group 1](#)
- [Oracle Enterprise Manager Cloud Control for Server Group 1](#)

**See Also:** *Oracle Big Data Appliance Owner's Guide* for a description of the software configuration options

## Installed Components for Server Group 1

In [Table 8](#), identify the applications to activate and configure. You can configure the group as either a CDH cluster or an Oracle NoSQL Database cluster. CDH and Oracle NoSQL Database do not run on the same cluster.

Oracle NoSQL Database *Community Edition* is included in the license for Oracle Big Data Appliance. Oracle NoSQL Database *Enterprise Edition* requires a separate license. You must have this license to install Enterprise Edition on Oracle Big Data Appliance.

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**Note:** You cannot expand an Oracle NoSQL Database cluster after it is configured.

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### Optional Software

Oracle Big Data Connectors is an optional component on CDH clusters. You must activate it now if you plan to use the connectors. Otherwise, you can save disk space for other uses by not activating them.

Oracle Big Data Connectors requires a separate license. You must have this license to install the connectors on Oracle Big Data Appliance. If you have a license, then you can decide whether to configure Oracle Data Integrator agent during the initial software installation, so that it is up and running immediately.

**Table 8 Software Components Configuration Worksheet for Server Group 1**

Property	Setting
This group of servers is <b>Note: If you are adding this server group to an existing cluster, then leave blank all other configuration settings for the group.</b>	
Cluster Name <sup>1</sup>	
Are Oracle Big Data Connectors licensed? (CDH clusters only)	
Install Oracle Data Integrator agent? (CDH clusters only)	
Which Oracle NoSQL Database Edition? (NoSQL clusters only)	

<sup>1</sup> Required. All other properties in this worksheet have default values.

### Auto Service Request for Server Group 1

In [Table 9](#), enter the configuration settings for Auto Service Request (ASR).

ASR monitors the health of Oracle Big Data Appliance hardware and automatically submits a service request when it detects a fault. Although you can opt out of this program, Oracle recommends that you enable ASR.

Before Oracle Big Data Appliance can be configured for ASR, ASR Manager must be installed and configured to run on a separate server outside of Oracle Big Data Appliance. The Oracle Big Data Appliance software installation fails with an error if Enable Auto Service Request is set to Yes, but ASR Manager is not installed and accessible using the host address and port number provided in [Table 9](#). The Mammoth Utility does not install ASR Manager.

The software on Oracle Big Data Appliance must be able to connect to ASR Manager and route to the Internet, either directly or through a proxy, to send event information that automatically opens service requests.

**See Also:** [Oracle Big Data Appliance Owner's Guide](#) for prerequisites for installing Auto Service Request, including port numbers.

**Table 9 Auto Service Request Configuration Worksheet for Server Group 1**

Property	Setting
Enable Auto Service Request?	
ASR Manager host address, such as asr-host.example.com	
ASR Manager port number	
ASR Server root password: Leave blank only if you will be available during the installation to provide it.	

## Users and Groups for Server Group 1

The installation software defines users, groups, and passwords. If you do not provide the passwords in [Table 10](#) for the configuration files, then you must enter them manually during the installation. Enter passwords that are valid for the product. For example, Oracle Data Integrator passwords can contain letters, numbers, and the following special characters: dollar sign (\$), hash mark (#), underscore (\_). They cannot begin with an at-sign (@), a number, or a special character.

The Oracle IDs must match those of a connected Oracle Exadata Database Machine to support the network file system (NFS) protocol between the two systems.

**Table 10 Users and Groups Configuration Worksheet for Server Group 1**

Description	Value
Cloudera Manager admin password <sup>1</sup> (CDH clusters only)	
root operating system password <sup>1</sup>	
oracle operating system password <sup>1</sup>	
oracle user ID	
oinstall group ID	
dba group ID	
MySQL Database administration password <sup>1</sup> (CDH clusters only)	
MySQL Database password for Oracle Data Integrator <sup>1</sup> (CDH clusters only)	

<sup>1</sup> Required. Leave blank only if you will be available during the installation.

## Cloudera Manager Email Alerts for Server Group 1

In [Table 11](#), provide information about the email server (SMTP) on the network. The user name and password fields appear only when authentication is set to yes.

This information enables Cloudera Manager to send email alerts when it detects a problem in the CDH cluster. If this information is omitted, then no email alerts are sent.

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**Note:** Leave this worksheet blank if you are configuring an Oracle NoSQL Database cluster.

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**Table 11 Email Configuration Worksheet for Server Group 1**

Property	Value
Email Server host address, such as router.example.com	
Email Server port number	
Email Server uses authentication?	
Email Server user name	
Email Server password	
Does the email server use SSL?	
Email alert recipients	

## Oracle Enterprise Manager Cloud Control for Server Group 1

In [Table 12](#), provide information about Oracle Enterprise Manager installed with the system monitoring plugin for Oracle Big Data Appliance.

Before Oracle Big Data Appliance can be configured for the system monitoring plugin, Enterprise Manager must be installed and configured to run on a separate server outside of Oracle Big Data Appliance. The Oracle Big Data Appliance software installation fails with an error if Enable Enterprise Manager is set to Yes, but Enterprise Manager is not installed and accessible using the host address, port numbers, and so forth provided in [Table 12](#). The Mammoth Utility does not install Enterprise Manager Cloud Control. It deploys and validates the agents on Oracle Big Data Appliance, which Enterprise Manager uses to monitor the appliance.

The Cloud Control user must have sufficient privileges to perform administrative `emcli` commands. Typically, this user is `sysman`.

The Agent Registration password is part of the security setup of Enterprise Manager. To obtain the password in Enterprise Manager, click **Setup** at the top right of the window, **Security**, and then **Registration Passwords**.

To obtain the HTTPS port numbers, use an `emctl status oms -details` command from the Enterprise Manager host.

**Table 12 Enterprise Manager Configuration Worksheet for Server Group 1**

Property	Value
Enable Enterprise Manager?	
Cloud Control host, such as <code>oem-host.example.com</code>	
Cloud Control user name, such as <code>sysman</code>	
Cloud Control password	
Cloud Control management agent registration password	
Cloud Control DBA SYS password	

**Table 12 (Cont.) Enterprise Manager Configuration Worksheet for Server Group 1**

Property	Value
Oracle Management Server HTTPS port	
Oracle Management Server upload HTTPS port	

## Server Group 2 Worksheets

Configure the following worksheets for server group 2 if you are creating multiple clusters on Oracle Big Data Appliance:

- [Installed Components for Server Group 2](#)
- [Auto Service Request for Server Group 2](#)
- [Users and Groups for Server Group 2](#)
- [Cloudera Manager Email Alerts for Server Group 2](#)
- [Oracle Enterprise Manager Cloud Control for Server Group 2](#)

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**Note:** Leave these worksheets blank if you are configuring a single group.

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### Installed Components for Server Group 2

In [Table 13](#), identify the applications to activate and configure.

**Table 13 Software Components Configuration Worksheet for Server Group 2**

Property	Setting
This group of servers is  <b>Note: If you are adding this server group to an existing cluster, then leave blank all other configuration settings for the group.</b>	
Cluster Name <sup>1</sup> .	
Are Oracle Big Data Connectors licensed? (CDH clusters only)	
Install Oracle Data Integrator agent? (CDH clusters only)	
Which Oracle NoSQL Database Edition? (NoSQL clusters only)	

<sup>1</sup> Required. All other properties in this worksheet have default values.

## Auto Service Request for Server Group 2

In [Table 14](#), enter the configuration settings for Auto Service Request (ASR).

**Table 14 Auto Service Request Configuration Worksheet for Server Group 2**

Property	Setting
Enable Auto Service Request?	
ASR Manager host address	
ASR Manager port number	
ASR Server root password: Leave blank only if you will be available during the installation to provide it.	

## Users and Groups for Server Group 2

In [Table 15](#), enter passwords for the users defined during installation. Otherwise, you must enter them manually during the installation process.

**Table 15 Users and Groups Configuration Worksheet for Server Group 2**

Description	Value
Cloudera Manager admin password <sup>1</sup> (CDH clusters only)	
root operating system password <sup>1</sup>	
oracle operating system password <sup>1</sup>	
oracle user ID	
oinstall group ID	
dba group ID	
MySQL Database administration password <sup>1</sup> (CDH clusters only)	
MySQL Database password for Oracle Data Integrator <sup>1</sup> (CDH clusters only)	

<sup>1</sup> Required. Leave blank only if you will be available during the installation.

## Cloudera Manager Email Alerts for Server Group 2

In [Table 16](#), provide information about the email server (SMTP) on the network. The user name and password fields appear only when authentication is set to yes.

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**Note:** Leave this worksheet blank if you are configuring an Oracle NoSQL Database cluster.

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**Table 16 Email Configuration Worksheet for Server Group 2**

Property	Value
Email Server host address	
Email Server port number	
Email Server uses authentication?	
Email Server user name	
Email Server password	
Does the email server use SSL?	
Email alert recipients	

## Oracle Enterprise Manager Cloud Control for Server Group 2

In [Table 17](#), provide information about Oracle Enterprise Manager installed with the system monitoring plugin for Oracle Big Data Appliance.

**Table 17 Enterprise Manager Configuration Worksheet for Server Group 2**

Property	Value
Enable Enterprise Manager?	
Cloud Control host, such as oem-host.example.com	
Cloud Control user name, such as sysman	
Cloud Control password	
Cloud Control management agent registration password	
Cloud Control DBA SYS password	
Oracle Management Server HTTPS port	
Oracle Management Server upload HTTPS port	

## Server Group 3 Worksheets

Complete the following worksheets if you are creating three clusters on Oracle Big Data Appliance:

- [Installed Components for Server Group 3](#)
- [Auto Service Request for Server Group 3](#)
- [Users and Groups for Server Group 3](#)
- [Cloudera Manager Email Alerts for Server Group 3](#)
- [Oracle Enterprise Manager Cloud Control for Server Group 3](#)

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**Note:** Leave these worksheets blank if you are configuring only one or two groups.

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### Installed Components for Server Group 3

In [Table 18](#), identify the applications to activate and configure.

**Table 18 Software Components Configuration Worksheet for Server Group 3**

Property	Setting
This group of servers is  <b>Note: If you are adding this server group to an existing cluster, then leave blank all other configuration settings for the group.</b>	
Cluster Name <sup>1</sup>	
Are Oracle Big Data Connectors licensed? (CDH clusters only)	
Install Oracle Data Integrator agent? (CDH clusters only)	
Which Oracle NoSQL Database Edition? (NoSQL clusters only)	

<sup>1</sup> Required. All other properties in this worksheet have default values.

### Auto Service Request for Server Group 3

In [Table 19](#), enter the configuration settings for Auto Service Request (ASR).

**Table 19 Auto Service Request Configuration Worksheet for Server Group 3**

Property	Setting
Enable Auto Service Request?	
ASR Manager host address	
ASR Manager port number	
ASR Server root password: Leave blank only if you will be available during the installation to provide it.	

## Users and Groups for Server Group 3

In [Table 20](#), enter passwords for the users defined during installation. Otherwise, you must enter them manually during the installation process.

**Table 20 Users and Groups Configuration Worksheet for Server Group 3**

Description	Value
Cloudera Manager admin password <sup>1</sup> (CDH clusters only)	
root operating system password <sup>1</sup>	
oracle operating system password <sup>1</sup>	
oracle user ID	
oinstall group ID	
dba group ID	
MySQL Database administration password <sup>1</sup> (CDH clusters only)	
MySQL Database password for Oracle Data Integrator <sup>1</sup> (CDH clusters only)	

<sup>1</sup> Required. Leave blank only if you will be available during the installation.

## Cloudera Manager Email Alerts for Server Group 3

In [Table 21](#), provide information about the email server (SMTP) on the network. The user name and password fields appear only when authentication is set to yes.

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**Note:** Leave this worksheet blank if you are configuring an Oracle NoSQL Database cluster.

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**Table 21 Email Configuration Worksheet for Server Group 3**

Property	Value
Email Server host address	
Email Server port number	
Email Server uses authentication?	
Email Server user name	
Email Server password	
Does the email server use SSL?	
Email alert recipients	

## Oracle Enterprise Manager Cloud Control for Server Group 3

In [Table 22](#), provide information about Oracle Enterprise Manager installed with the system monitoring plugin for Oracle Big Data Appliance.

**Table 22 Enterprise Manager Configuration Worksheet for Server Group 3**

Property	Value
Enable Enterprise Manager?	
Cloud Control host, such as oem-host.example.com	
Cloud Control user name, such as sysman	
Cloud Control password	
Cloud Control management agent registration password	
Cloud Control DBA SYS password	
Oracle Management Server HTTPS port	
Oracle Management Server upload HTTPS port	

## Sample Installation Template

This section provides an example of an Installation Template.

### Network Configuration

#### General

Property	Value
Customer Name	Example Industries Inc
Rack Name	bda1
Region	America
Timezone	America/New_York
Domain	example.com

Property	Value 1	Value 2...
DNS Server	172.16.100.45	
NTP Server	172.16.215.62	
Search Domains	example.com	us.example.com

## Server Network Info

Type	Netmask	Gateway
Administrative - eth0	255.255.252.0	10.18.113.1
Private - bondib0	255.255.252.0	
Client Access - bondeth0	255.255.252.0	10.18.114.1

BDA will not be connected to any other racks via InfiniBand.

Server Position	eth0 hostname -example.com	eth0 IP address	bondib0 IP hostname -example.com	...
01	bda1node01-adm	10.18.113.10	bda1node01-priv	...
02	bda1node02-adm	10.18.113.11	bda1node02-priv	...
03	bda1node03-adm	10.18.113.12	bda1node03-priv	...
...	...	...	...	...
17	bda1node17-adm	10.18.113.26	bda1node17-priv	...
18	bda1node18-adm	10.18.113.27	bda1node18-priv	...

## Switches

Type	Hostname -example.com	IP Address
KVM Switch		
Cisco Switch	bda1sw-ip	10.18.113.144
NM2-36p Spine Switch	bda1sw-ib1	10.18.113.145
NM2-GW Leaf Switch 1	bda1sw-ib2	10.18.113.146
NM2-GW Leaf Switch 2	bda1sw-ib3	10.18.113.147

## PDUs

Type	Hostname	IP Address
PDU A	bda1-pdua	10.18.113.151
PDU B	bda1-pdub	10.18.113.152

## Advanced Network Configuration

Property	Value 1	Value 2
Administrative Domain	example.com	Administrative hosts are listed in DNS servers.
Admin DNS Servers, if different		

Property	Value 1	Value 2
Admin NTP Servers, if different		
Admin Search Domains, if different		

## Software Configuration

This section shows the configuration of two clusters.

### Server Group 1 (12 Servers) a new CDH Hadoop cluster

#### Cluster hadoop 1

Property	Value
Oracle Big Data Connectors	are being licensed
Oracle Data Integrator Agent	will be installed

Property	Value
Oracle Auto Service Requests	will be configured
Oracle ASR server	asr-host.example.com:162
Oracle ASR Server root password	password

Property	Value
Cloudera Manager admin password	password
root operating system password	password
oracle operating system password	password
MySQL administration password	password
MySQL password for Oracle Data Integrator	password

Property	Value	Property	Value	Property	Value
oracle user ID	1000	oinstall group ID	1001	dba group ID	1002

Property	Value
Email server (SMTP) host	router.example.com:25 does not use SSL
Email server (SMTP) user name	smtp.user
Email server (SMTP)	password
Email alert recipients	admin@example.com

Property	Value 1	Value 2
Oracle Enterprise Manager	will be configured	
Oracle Cloud Control server	oem-host.example.com:14487	OMS Upload Port 4473
Oracle Cloud Control server user name	sysman	
Oracle Cloud Control server password	password	
Oracle Cloud Control registration password	password	

### Server Group 2 (6 Servers) a new NoSQL DB cluster

#### Cluster nosql1

Property	Value
Oracle Big Data Connectors	are not being licensed
Oracle Data Integrator Agent	will not be installed
Oracle NoSQL Database	will be installed - Enterprise Edition

Property	Value
Oracle Auto Service Requests	will be configured
Oracle ASR server	asr-host.example.com:162
Oracle ASR Server root password	password

Property	Value
root operating system password	password
oracle operating system password	password

Property	Value	Property	Value	Property	Value
oracle user ID	1000	oinstall group ID	1001	dba group ID	1002

Property	Value
Email server (SMTP) host	router.example.com:25 does not use SSL
Email server (SMTP) user name	smtp.user
Email server (SMTP)	password
Email alert recipients	admin@example.com

Property	Value 1	Value 2
Oracle Enterprise Manager	will be configured	
Oracle Cloud Control server	oem-host.example.com:14487	OMS Upload Port 4473

Property	Value 1	Value 2
Oracle Cloud Control server user name	sysman	
Oracle Cloud Control server password	password	
Oracle Cloud Control registration password	password	

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E41242-03

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